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ALSTON & BIRD LLP  
BANK OF AMERICA PLAZA  
101 SOUTH TRYON STREET, SUITE 4000  
CHARLOTTE, NC 28280-4000

EXAMINER

WILSON, DONALD R

ART UNIT PAPER NUMBER

1713

DATE MAILED: 10/17/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/090,525

Applicant(s)

DETERT ET AL.

Examiner

Donald R Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-12 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12 and 28-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Response to Election of Species***

1. Applicant's election to prosecute the invention of the specie as exemplified in Preparation Example 1, in Paper No. 10, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

***Response to Amendment***

2. Applicant's amendment filed 8/26/03, has been fully considered with the following results.

3. The amendment overcomes the rejection under 35 U.S.C. § 112, first paragraph, concerning, (i) the polyester side-arms containing sulfonic acid groups at least partially neutralized, (ii) the side chains being attached to the main chain through ester linkages, and (iii) side chains wherein the units "D" in the formulas of Claim 5 are the same or different, and in this regard the rejection is withdrawn. However, the rejection is maintained on the other basis for reasons discussed below.

4. The amendment overcomes the rejection under 35 U.S.C. § 112, second paragraph, concerning (i) the presence of neutralizable groups, (ii) non-polymeric carboxylic acids, (iii) the use of improper Markush groups, and (iv) some of the issues in now cancelled claim 5, rewritten as Claim 28, and in this regard the rejection is withdrawn. However, in regards to the other bases of rejection the rejection is maintained for reasons discussed below.

5. The amendment has not overcome the prior art, or provisional obviousness rejections which are maintained for reasons discussed below.

6. Applicant has not responded to the requirement to provide evidence of common ownership with copending Application No. 09/838,411 at the time the invention in this application was made or to name the prior inventor of the conflicting subject matter. Thus, the requirement is maintained.

***Previously Cited Statutes***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

**Claim Rejections - 35 USC § 112, First Paragraph**

8. **Claims 1-4, 6-8 and 28-30 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for comb polymers wherein the main chain is a polyacrylic acid, polymethacrylic acid, or an ester of these acids with C<sub>1</sub>-C<sub>22</sub> aliphatic, cycloaliphatic or aromatic alcohols, does not reasonably provide enablement for main chains of polymeric aliphatic, cycloaliphatic and aromatic polycarboxylic acids and derivatives thereof.** The basis of this rejection was stated in Detailed Action § 10 and 12 of the previous Office Action.

9. Applicant traverses the rejection arguing that Claim 3 has been amended to recite "polycarboxylic acid polymers" and stating that one skilled in the art would understand the meaning of "polycarboxylic acid polymer" in view of the teachings of the specification as a whole, which defines the polymer structures of the invention. This is not deemed to be persuasive because the limitations on which applicant relies are not stated in the claims.

It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. Claims may be interpreted in the light of the specification for the purpose of defining a given term under 35 USC 112 but it must be remembered that during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow. *In re Zletz*, 13 USPQ 1320. Generally, one does not read into claims in pending applications limitations from the specification. *In re Winkhaus*, 188 USPQ 129; *In re Prater*, 162 USPQ 541.

10. Further, a "polycarboxylic acid polymer" is literally understood to mean a polymer of a polycarboxylic acid. The acrylic and methacrylic acids and esters are not polycarboxylic acids or polycarboxylic acid esters.

11. **Claims 28 and 30 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for comb polymers wherein R<sup>2</sup> is an amino functional radical, or an alkoxy radical, does not reasonably provide enablement for comb polymers wherein R<sup>2</sup> is a "COOR<sup>2</sup>" group.** The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. As the entities to which the R<sup>2</sup> radical is connected contains an acyl terminal group, the resulting end group would be an  $\alpha$ -ketoester. It is not seen that the specification gives any teaching as to

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how such polymers are made. It is pointed out that when  $R^2$  is "O-R<sup>5</sup>" the terminal group is an ester. It has been assumed that applicant intended Claim 30 to depend from Claim 28.

***Claim Rejections - 35 USC § 112, Second Paragraph***

12. ***Claims 1-4, 6-12 and 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.***

13. The language of Claims 3-4 are indefinite because given enough chemistry, almost any compound could be a derivative of the specified polyacids. Therefore it is unclear what compounds are included in "derivatives thereof". The basis of this rejection was stated in Detailed Action § 18 of the previous Office Action. Applicant traverses the rejection stating that one of ordinary skill in the art would understand the meaning of "derivatives" and that the specification gives examples of various derivatives. This is not deemed to be persuasive because the statement is unsupported by any evidence and does not address the merits of the stated rejection. The issue is not whether the specification provides examples of derivatives. The issue is determining the metes and bounds of what is being claimed.

There are two separate requirements set forth in the § 112, second paragraph::

(A) the claims must set forth the subject matter that applicants regard as their invention; and

(B) the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant.

See M.P.E.P. § 2171.

14. Claims 4 and 29 are indefinite because Claim 3 does not provide an antecedent basis for polyacrylic acid, polymethacrylic acid, or an ester of these acids. Further, the chemical structure of polynorbornenic acid is unclear (Claim 4). The basis of this rejection was stated in Detailed Action § 19 of the previous Office Action. It remains that acrylic and methacrylic acids and their esters are not polycarboxylic acids or polycarboxylic acid esters, and therefore polymers of these acids and esters are not polycarboxylic acid polymers or derivatives thereof. The statement that one skilled in the art would understand the meaning of the term "polynorbornenic acid" to include polynorbornenic [sic] dicarboxylic acid" is not deemed to be persuasive because it is not supported by any evidence. Further, even if this

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was shown to be true, which it hasn't, the term would still be unclear as it isn't known what else is included in the term.

15. The language of Claim 28 is indefinite because of the following:

- a. It cannot be told whether or not the "average molecular weights" are on a number average, weight average, or some other basis. The difference between weight average and number average molecular weights would be expected to be at least a factor of two for the polymers disclosed making the limits of the claims indefinite.
- b. It is not seen that the comb polymers with the structures taught could possibly have a molecular weight as low as 200.
- c. It is not seen that the unit "G" could possibly have the same molecular weight limitations as that of the comb polymer which necessarily contain multiple G units, in addition to other units.
- d. The definition of  $R^1$  is indefinite because of the term "counterion" making it unclear what the ion is counter to, no other ion being defined. If applicant simply means that they are cations, then that language should be used. Alternatively, it could be stated that the " $-SO_3$ " group is an ion and that " $R^1$ " is a counter ion thereto.
- e. It is also unclear as to what is included in ethoxylated sulphonated organyl radicals bridged via ether functions, and metal salts thereof.

16. The language of Claims 6 and 8-12 are indefinite because it cannot be told whether or not the "average molecular weights" are on a number average, weight average, or some other basis. The basis of this rejection was stated in Detailed Action § 21 of the previous Office Action. Applicant has not addressed this issue. Thus, the rejection is maintained.

17. Claim 30 is indefinite because it depends from a cancelled claim. The claim is further indefinite because it is not seen how "D" is comprised of two or more different acid components of the indicated formula, which is a single diacyl terminated component.

***Claim Rejections - 35 USC § 102(b)/§ 103(a)***

18. ***Claims 1-4, 6-12 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO'055, EP'352 or EP'287.*** The basis of this rejection was stated in Detailed Action § 27-30 of the previous Office Action.
19. ***Claims 1-4, 6-12 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becherer.*** The basis of this rejection was stated in Detailed Action § 31-32 of the previous Office Action.
20. Applicant has submitted an English language translation of the foreign priority papers for the instant application, asserting that this obviates the rejections over WO'055, EP'352, EP'287 or Becherer. This is not deemed to be persuasive because the translation provided is not in conformance with 37 C.F.R. § 1.55(a)(4) which requires that "[i]f an English language translation is required, it must be filed together with a statement that the translation of the certified copy is accurate" (underlining added). As no such statement was included the rejections are maintained.

***Obviousness Double Patenting Rejection***

21. ***Claims 1-4, 6-12 and 28-30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-4 of copending Application No. 09/838,411.*** The basis of this rejection was stated in Detailed Action § 36-37. Applicant's statement that they reserve the right to submit a terminal disclaimer does not overcome the rejection which is therefore maintained.

***Evidence of Common Ownership***

22. Claims 1-4, 6-12 and 28-30 are directed to an invention not patentably distinct from Claims 1-4 of commonly assigned copending Application No. 09/838,411, which has a different inventive entity. The reasons are discussed in the of the previous Office Action. Applicant has not as is required under 37 CFR 1.78(c) and 35 U.S.C. 132, either shown that the conflicting inventions were commonly owned at the time the invention in this application was made, or named the prior inventor of the conflicting subject matter. This requirement was set forth in Detailed Action § 38-41 of the previous Office Action. Applicant is reminded that failure to comply with this requirement will result in a holding of abandonment of the application.

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***Object to Abstract***

23. The abstract of the disclosure is objected to because it recites that "the polyester side-arms contain sulphone groups". This needs to be amended to recite that it contains partially neutralized sulfonic acid groups as is now recited in the claims. Correction is required. See MPEP § 608.01(b).

***Action Is Final***

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

25. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Future Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald R Wilson whose telephone number is 703-308-2398.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 703-308-2450. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The unofficial direct fax phone number to the Examiner's desk is 703-872-9029.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-2351.



Donald R Wilson  
Primary Examiner  
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